

continuation of the research conducted by Bedford et al.¹ on clubfoot in Malawi, by continuing the method of analysis into the neighbouring country of Zambia to identify similarities and differences in cultural understanding and behaviour towards clubfoot treatment, including surgical and non-surgical treatment options.

Results: Key barriers to treatment were identified: financial/ transportation, adverse advice, cultural beliefs, and prioritisation. The major driving factors identified were: community support, physician advice, wishes to help child and accessibility of transportation.

Conclusions: Work is already in place which addresses some of these drivers and barriers, and there is need for continuing improvement in these areas in order to ensure the implementation of gold-standard clubfoot treatment for Zambia's population. 1. Bedford K, Chidothi P, Sakala H, Cashman J, Lavy C. Clubfoot in Malawi: treatment-seeking behaviour. *Tropical Doctor* 2001;21:211–214.

0827: OPERATIVE FIXATION OF DISTAL RADIUS FRACTURES: RADIOLOGICAL OUTCOMES AND THE ROLE OF UPPER LIMB TRAUMA LISTS

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Introduction: The most commonly treated fracture is that of the distal radius. A 2011 article by Ng and McQueen aimed to identify radiological parameters that predict functional outcome. A previous review in our trust demonstrated that 63% of fixations achieved all parameters. Additional upper-limb trauma theatre sessions have since been implemented for management of more complex cases. We have undertaken a further review to assess the influence of these changes on radiographic outcomes.

Methods: A retrospective review assessed post-operative radiographs for adherence to parameters set out by Ng: positive ulnar variance ≤ 3 mm; radial dorsal tilt ≤ 0 degrees; articular step ≤ 2 mm, no carpal malalignment.

Results: 50 cases were reviewed. 74% achieved all parameters. Upper-limb surgeons operated on 22% of patients; all outcomes were achieved in 82% of these cases, compared with 64% operated on by non-upper limb specialists.

Conclusions: Radiological outcomes have improved following the implementation of upper-limb trauma lists. A greater percentage of patients achieved satisfactory outcomes in all parameters in patients operated on by upper limb surgeons. Surgeons must be exposed to an adequate case volume to maintain skills in wrist trauma and therefore more complex cases, in particular, may benefit from intervention by upper-limb surgeons.

0828: THE ZENITH TOTAL ANKLE REPLACEMENT – EARLY RESULTS OF THE FIRST 50 CASES IN A NON-INVENTOR SERIES

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Introduction: Total ankle replacement (TAR) surgery has undergone significant development since early implant designs. It is a viable alternative to arthrodesis in a select group of patients with end stage tibial talar joint arthritis. We describe the early results of a prospective study of the third generation mobile bearing total ankle replacements performed by a single surgeon.

Methods: 50 consecutive patients undergoing Zenith TAR were included in the study. Demographic details and outcome scores were collated. Pre operatively and at their most recent follow up.

Results: Mean follow up was 48 months. VAS and AOFAS scores had improved significantly ($p < 0.05$) when compared to pre-operative scores. 46 patients were satisfied and 4 unsatisfied with surgery. 1 patient has undergone revision surgery.

Conclusions: This non-inventor series of a third generation mobile bearing total ankle replacement has shown excellent results in the short term. Longer follow up data will be required if TAR is to be more widely offered.

0860: THE POTENTIAL IMPACT OF PATIENT SELECTION BIAS ON NATIONAL LEAGUE TABLES. DOES THE NHS COME OFF WORST?

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Introduction: Ranking hospitals, departments and surgeons is increasingly popular and the results frequently publicised. A higher American Society of Anaesthesiologist (ASA) score is an independent predictor of

poorer outcome following total knee replacement (TKR). Our aim was to evaluate the ASA case mix between orthopaedic hospitals for TKR.

Methods: A retrospective cohort analysis using National Joint Registry of England and Wales (NJR) ASA data for TKR's between 01/04/2011 and 31/03/2013. Data included our trust's three centres, all NHS hospitals, national independent sector treatment centres (ISTC) and independent private sector hospitals in England and Wales.

Results: 122,458 NHS TKR's were performed, 981 in our trust. There were 44,863 (26%) performed in private hospitals and 8,174 (5%) in NHS ISTC's. The average ASA for our two DGH's were 2.16 and 2.01, however our treatment centre averaged 1.88. Average national results mirror this with ISTC's 1.99 and private sector 1.91, both well below the national NHS of 2.12.

Conclusions: This difference in ASA scores risks league table validity as high risk patients are not treated in private or ISTC's.

This bias likely affects all surgical specialties and could artificially favour treatment centres and private healthcare providers proving detrimental to NHS public opinion.

0925: THE MOBILITY TOTAL ANKLE REPLACEMENTS: CAN DESIGNER SURGEON RESULTS BE REPRODUCED?

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Introduction: Total ankle replacement (TAR) is an alternative to arthrodesis in end-stage osteoarthritis. A designer centre series with the Mobility TAR has reported a 4-year implant survival of 93.6%. It is uncertain if these results are reproducible in smaller centres. Our aim was to determine implant survival, functional outcomes and complications following Mobility TAR in a single surgeon, lower output unit.

Methods: Retrospective review of 28 procedures (27 patients) performed between 2005 and 2012. Pre- and postoperative AOFAS-Hindfoot scores were compared. Additionally, postoperative MOX-FQ and EuroQol EQ-5D-5L scores, range of movement and complications were recorded.

Results: Median (range) age was 68.5 (55–82) years and BMI 29 (23–40). At 36 (7–89) months follow-up, there was a statistically significant increase in AOFAS-Hindfoot score from 37 (15–71) to 82 (22–97) postoperatively (paired Student's t-test; $p < 0.001$). Post-operative MOX-FQ and EuroQol scores confirmed good functional outcomes. There were 2 intraoperative malleolar fractures requiring internal fixation, no infections and one revision (arthrodesis) for aseptic loosening at 89 months postoperatively.

Conclusions: Our results show good implant survival, low complication rates and good functional outcomes at medium term follow-up. We believe early outcome results of Mobility TAR are reproducible by lower volume non designer centres with appropriate training.

0931: NON-STEROIDAL ANTI-INFLAMMATORY DRUGS REDUCE DURATION OF HOSPITAL STAY IN PATIENTS UNDERGOING ERAS FOR PRIMARY TOTAL KNEE REPLACEMENT

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Introduction: Enhanced recovery after surgery (ERAS) programmes aim to facilitate faster postoperative recovery time resulting in reduced hospital stay. The study assessed patient and pain management factors that correlated with a shorter duration of admission in patients undergoing ERAS for primary total knee replacement (TKR).

Methods: 23 patients who received a primary TKR on an ERAS programme between April and June 2013 were retrospectively identified. Duration of admission (≤ 3 days, or ≥ 4 days) was compared to patient factors and aspects of pain management ascertained through case note and drug chart review. Namely: patient gender and age, method of operative anaesthesia, number of preoperative oral analgesics, immediate postoperative use of patient controlled anaesthesia, non-steroidals (NSAIDs) and oxycontin, and preoperative patient education. Fisher's Exact Test, odds ratios and 95% confidence intervals were used to establish statistical significance and strength of association.

Results: Of 13 patients discharged within 3 days, 76% received a spinal anaesthetic ($p = 0.65$) and 92% received immediate postoperative NSAIDs ($p = 0.05$). None of the remaining variables examined showed a correlation with shorter hospital stay.

Conclusions: In patients undergoing ERAS primary TKR immediate post-operative NSAIDs have the greatest influence on reducing the overall duration of hospital stay.